

REMARKS

Claims 1-22 are pending in the present application.

Applicants have now submitted a substitute Sequence Listing and a corresponding computer-readable Sequence Listing. The sequence information recorded in the corresponding computer-readable Sequence Listing is identical to the paper copy of the substitute Sequence Listing. Support for all of the sequences listed in the substitute Sequence Listing is found in the present application as originally filed. No new matter is believed to have been introduced by the submission of the substitute Sequence Listing and the corresponding computer-readable Sequence Listing.

Applicants submit that the present application is ready for examination on the merits. Early notice to this effect is earnestly solicited.

Respectfully submitted,

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**22850**

Docket No.: 218162US0X  
Serial No.: 10/076,416

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IN THE SPECIFICATION

Please replace paragraph beginning on page 13, line 24 with the following:

Parts of the 5' and 3' region of the poxB gene are amplified from Escherichia coli K12 using the polymerase chain reaction (PCR) and synthetic oligonucleotides. Starting from the nucleotide sequence of the poxB gene in E. coli K12 MG1655 (SEQ ID No. 1), the following PCR primers are synthesized (MWG Biotech, Ebersberg, Germany):

poxB'5'-1: 5' - CTGAACGGTCTTAGTGACAG - 3' (SEQ ID No. 5)

poxB'5'-2: 5' - AGGCCTGGAATAACGCAGCAGTTG - 3' (SEQ ID No. 6)

poxB'3'-1: 5' - CTGCGTGCATTGCTTCCATTG - 3' (SEQ ID No. 7)

poxB'3'-2: 5' - GCCAGTTCGATCACTTCATCAC - 3' (SEQ ID No. 8)

Please replace paragraph beginning on page 15, line 23 with the following:

For replacement of the chromosomal poxB gene with the plasmid-coded deletion construct, MG442 is transformed with the plasmid pMAK705 $\Delta$ poxB. The gene replacement is carried out by the selection method described by Hamilton et al. (1989) Journal of Bacteriology 174, 4617 - 4622) and is verified by standard PCR methods (Innis et al. (1990) PCR Protocols. A Guide to Methods and Applications, Academic Press) with the following oligonucleotide primers:

poxB'5'-1: 5' - CTGAACGGTCTTAGTGACAG - 3' (SEQ ID No. 5)

poxB'3'-2: 5' - GCCAGTTCGATCACTTCATCAC - 3' (SEQ ID No. 8)

Please replace paragraph beginning on page 17, line 6 with the following:

The glutamate dehydrogenase gene from *Escherichia coli* K12 is amplified using the polymerase chain reaction (PCR) and synthetic oligonucleotides. Starting from the nucleotide sequence for the *gdhA* gene in *E. coli* K12 MG1655 (gene library: Accession No. AE000270 and No. AE000271), PCR primers are synthesized (MWG Biotech, Ebersberg, Germany):

Gdh1: 5' - TGAACACTTCTGGCGGTACG - 3' (SEQ ID No. 9)

Gdh2: 5' - CCTCGGCGAAGCTAATATGG - 3' (SEQ ID No. 10)

Please replace paragraph beginning on page 19, line 5 with the following:

The *rhtC* gene from *Escherichia coli* K12 is amplified using the polymerase chain reaction (PCR) and synthetic oligonucleotides. Starting from the nucleotide sequence for the *rhtC* gene in *E. coli* K12 MG1655 (gene library: Accession No. AE000458, Zakataeva et al. (FEBS Letters 452, 228-232 (1999))), PCR primers are synthesized (MWG Biotech, Ebersberg, Germany):

RhtC1: 5' - CTGTTAGCATCGGCGAGGCA - 3' (SEQ ID No. 11)

RhtC2: 5' - GCATGTTGATGGCGATGACG - 3' (SEQ ID No. 12)

Please replace paragraph beginning on page 21, line 14 with the following:

For replacement of the chromosomal *poxB* gene with the plasmid-coded deletion construct, TOC21R is transformed with the plasmid pMAK705 $\Delta$ *poxB* (Example 2). The gene replacement is carried out by the selection method described by Hamilton et al. (1989) *Journal of Bacteriology* 174, 4617 - 4622) and is verified by standard PCR methods (Innis et al. (1990) *PCR Protocols. A Guide to Methods and Applications*, Academic Press) with the following oligonucleotide primers:

*poxB*'5'-1: 5' - CTGAACGGTCTTAGTGACAG - 3' (SEQ ID No. 5)

*poxB*'3'-2: 5' - GCCAGTTCGATCACTTCATCAC - 3' (SEQ ID No. 8)

Please replace paragraph beginning on page 23, line 12 with the following:

For replacement of the chromosomal poxB gene with the plasmid-coded deletion construct, TOC21R is transformed with the plasmid pMAK705 $\Delta$ poxB (Example 2). The gene replacement is carried out by the selection method described by Hamilton et al. (1989) Journal of Bacteriology 174, 4617 - 4622) and is verified by standard PCR methods (Innis et al. (1990) PCR Protocols. A Guide to Methods and Applications, Academic Press) with the following oligonucleotide primers:

poxB'5'-1: 5' - CTGAACGGTCTTAGTGACAG - 3' (SEQ ID No. 5)

poxB'3'-2: 5' - GCCAGTTCGATCACTTCATCAC -3' (SEQ ID No. 8)

Please delete the original Sequence Listing at page 27-36.

Page 41 (Abstract), after the last line, beginning on a new page, please insert the attached Sequence Listing.



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